

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A communication system, comprising:

a transmitter for transmitting one or more data packets;

at least one receiver connected to the transmitter, for receiving the data packets and transmitting to the transmitter one or more response signals in response to the received data packets; and

a multiplexer for multiplexing and transmitting to the transmitter the response signals transmitted from the receiver, and transmitting the transmitted data packets from the transmitter to a corresponding receiver, the multiplexer composed of:

a queue status monitor; and

a congestion control adjuster,

wherein the queue status monitor monitors a queue status of at least one of the transmitted data packets and the response signals, and

wherein the congestion control adjuster instructs the receiver to compress the response signals based on the monitored queue status, and

wherein the receiver includes a response signal holding/compressing unit for, if the congestion control adjuster disposed between the transmitter and the at least one receiver predicts that congestion will occur with the response signals transmitted to the transmitter from the receiver, compressing the response signals for a predetermined period of time, as instructed by the congestion control adjuster, and

wherein the queue status monitor is disposed inside the multiplexer.

2. (canceled).

3. (previously presented): The communication system as claimed in claim 1, wherein the congestion control adjuster instructs the corresponding receiver to hold the response signals if the queue status of the monitored data packets is over a first threshold.

4. (previously presented): The communication system as claimed in claim 1, wherein the congestion control adjuster instructs the corresponding receiver to compress the response signals if the queue status of the monitored data packets is under a first threshold and over a second threshold.

5. (previously presented): The communication system as claimed in claim 1, wherein the congestion control adjuster instructs the corresponding receiver to compress the response signals if the queue status of the monitored data packets is under a first threshold and the queue status of the response signals is over a second threshold.

6. (previously presented): The communication system as claimed in claim 1, wherein the transmitter transmits the data packets at a first transmission rate exceeding 6 Mbps, and the receiver transmits the response signals at a second transmission rate under 900 Kbps.

7. (currently amended): A communication system, comprising:

at least one transmitter for transmitting one or more data packets;

at least one receiver belonging to a private network and connected to the transmitter, for receiving the data packets and transmitting to the transmitter one or more response signals in response to the received data packets; and

a gateway for arbitrating a communication protocol between the transmitter and the private network, the gateway composed of:

a queue status monitor; and

a congestion control adjuster;

wherein the queue status monitor monitors a queue status of at least one of the transmitted data packets and the response signals, and

wherein the congestion control adjuster instructs the receiver to compress the response signals based on the monitored queue status, and

wherein the receiver includes a response signal holding/compressing unit for, if the congestion control adjuster disposed between the at least one transmitter and the at least one receiver predicts that congestion will occur with the response signals transmitted to the

transmitter from the receiver, compressing the response signals for a predetermined period of time, as instructed by the congestion control adjuster, and

wherein the queue status monitor is disposed inside the gateway.

8. (canceled).

9. (previously presented): The communication system as claimed in claim 7, wherein the congestion control adjuster instructs a corresponding receiver to hold the response signals if the queue status of the monitored data packets is over a first threshold.

10. (previously presented): The communication system as claimed in claim 7, wherein the congestion control adjuster instructs a corresponding receiver to compress the response signals if the queue status of the monitored data packets is under a first threshold and over a second threshold.

11. (previously presented): The communication system as claimed in claim 7, wherein the congestion control adjuster instructs a corresponding receiver to compress the response signals if the queue status of the monitored data packets is under a first threshold and the queue status of the response signals is over a second threshold.

12. (previously presented): The communication system as claimed in claim 7, wherein the transmitter transmits the data packets at a first transmission rate exceeding 6 Mbps, and the receiver transmits the response signals at a second transmission rate under 900 Kbps.

13. (previously presented): A communication method in which a receiver receiving data packets from a transmitter transmits to the transmitter response signals corresponding to the data packets, comprising:

monitoring a queue status of at least one of the data packets and the response signals;

instructing the receiver to compress the response signals based on the monitored queue status; and

if a congestion control adjuster disposed between the transmitter and the receiver predicts that congestion will occur with the response signals transmitted to the transmitter from the receiver, compressing the response signals for a predetermined period of time, as instructed by the congestion control adjuster.

14. (previously presented): The communication method as claimed in claim 13, wherein the congestion control adjuster instructs a corresponding receiver to hold the response signals if the monitored queue status of the data packets is over a first threshold.

15. (previously presented): The communication method as claimed in claim 13, wherein the congestion control adjuster instructs a corresponding receiver to compress the response signals if the monitored queue status of the data packets is under a first threshold and over a second threshold.

16. (previously presented): The communication method as claimed in claim 13, wherein the congestion control adjuster instructs a corresponding receiver to compress the

response signals if the monitored queue status of the data packets is under a first threshold and the monitored queue status of the response signals is over a second threshold.

17. (canceled).

18. (canceled).

19. (canceled).

20. (previously presented): The communication system according to claim 1, further comprising a first-in first-out (FIFO) buffer which outputs one of: the one or more data packets transmitted from the transmitter and the one or more response signals transmitted from the receivers.